

REMARKS

The Examiner's Action mailed on August 16, 2006, has been received and its contents carefully considered. Additionally attached to this Amendment is a Petition for Extension of Time, extending the period for response to December 16, 2006, as well as a Request for Continued Examination (RCE).

In this Amendment, claim 1 has been amended. Claims 1-12 remain pending in the application. For at least the following reasons, it is submitted that this application is in condition for allowance.

The Examiner has rejected claims 1-8 and 10-12 as being obvious in view of *Miyashita et al.* (USP 5,558,015) in view of *Chou* (USP 6,482,742). The Examiner has also rejected claim 9 as being obvious over *Miyashita et al.* in view of *Chou* and *Gorczyca et al.* (USP 6,787,071). It is submitted that these claims are patentably distinguishable over the cited references for at least the following reasons.

Applicants' claim 1 is directed to a parallelism adjustment device applicable to nano-imprint lithography. The parallelism adjustment mechanism comprises a hermetically enclosed resilient film and a predetermined amount of fluid filled therein. Further, claim 1 recites a carrier unit at least having a second molding plate, a suction plate mounted on the second molding plate, and a substrate mounted on the suction plate. This invention has the advantages discussed in

Applicants' specification, including contributing to the accurate positioning of the substrate and the first and second molding plates. This claimed invention is neither disclosed nor suggested by the cited references.

The Action asserts that *Miyashita et al.* teach a pressure vessel (38), which is equivalent to Applicants' claimed parallelism adjustment mechanism. However, and in contrast to the present invention, *Miyashita et al.* do not disclose or suggest a carrier unit having a suction plate mounted on a second molding plate, and a substrate mounted on the suction plate. In fact, this reference does not disclose or suggest any sort of suction plate at all.

Further, this reference discloses, in col. 5, lines 31-32, that the plate-like vessel 38a is "made of a thin film and filled with a fluid (liquid) heating medium 37", and further discloses in col. 5, lines 44-47 that "As the material for the plate-like vessel 38 of a thin film, there is used a metal sheet or a fluororubber sheet having an excellent thermal resistance, the thickness of this material being about 0.1 mm". Moreover, in col. 6, lines 22-44, this reference discloses that "As a result, the plate-like vessels 38 are first brought into contact with convex portions of the substrate blanks 40 through the upper and lower heat plates 11b and 11a. Pressure developing at the area of contact between each plate-like vessel 38 and the corresponding substrate blank 40 at this time is dispersed over the entire area of the liquid heating medium, and therefore is converted into a force deforming the whole of the plate-like vessel 38. Thus, this pressure is dispersed to be converted

into a very low pressure. Therefore, a displacement between the upper and lower substrate blanks 40 which would otherwise occur upon contact with the convex portions at the initial stage of the pressing operation is avoided. In accordance with the movement of the lower bolster 6, each plate-like vessel 38 is brought into contact with the surface of the corresponding substrate blank 40, while gradually being deformed in conformity with this surface, and is held in intimate contact with the entire surface of the substrate blank 40. Because of the intimate contact of each plate-like vessel 38 with the corresponding substrate blank 40, heat transfer pressing can be carried out under a uniform surface pressure. Therefore, there can be obtained the board which is free from displacement and has a uniform thickness" (emphasis added).

From the above, it is clear that although *Miyashita et al.* teach a plate-like vessel 38, the plate-like vessel 38 is not used to adjust a parallelism of the upper and lower substrate blanks 40, or the upper and lower heat plates 11b and 11a, because there is no displacement of the upper and lower substrate blanks 40, even if the plate-like vessel 38 contacts with the upper and lower substrate blanks 40. Therefore, the plate-like vessel 38 is NOT equivalent to the parallelism adjustment mechanism of the amended claim 1 of the present invention.

Further, the upper and lower substrate blanks 40 are already stacked before an imprinting process (hot press) is performed, so further parallelism

adjustment is not necessary. As such, *Miyashita et al.* do not teach or suggest any feature relating to parallelism adjustment.

Moreover, neither *Chou* nor *Gorczyca et al.* (6,787,071) overcome these deficiencies of *Miyashita et al.* *Chou* discloses that an assembly 30 is disposed within a pressure vessel 31 for further operation, and *Gorczyca et al.* teach using a lubricant layer, but neither reference teaches a suction plate or any parallelism adjustment mechanism.

Since the cited prior art does not teach or suggest Applicants' claimed invention, it is respectfully submitted that claim 1 and the claims dependent therefrom are patentable over the cited references. It is thus requested that these rejections be withdrawn, and that these claims be allowed.

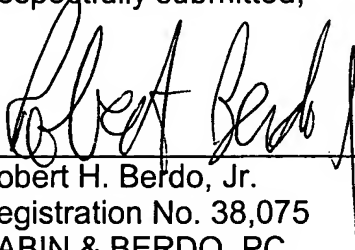
The Examiner has rejected claims 1, 5-8 and 10 on the grounds of double patenting. Attached to this amendment is a terminal disclaimer, thus rendering this rejection moot.

It is submitted that this Application is now in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

Should the remittance be accidentally missing or insufficient, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert H. Berdo, Jr.", is written over a horizontal line.

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Date

RHB/vm